



Air Quality Permitting Statement of Basis

December 15, 2005

Permit to Construct No. P-050016

**J. R. Simplot Company, Food Group, Caldwell Facility
Caldwell, ID**

Facility ID No. 027-00009

Prepared by:

Shawnee Chen, P.E., Senior Engineer
Air Quality Division

FINAL

Table of Contents

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURES	3
1. PURPOSE	4
2. FACILITY DESCRIPTION	4
3. FACILITY / AREA CLASSIFICATION.....	4
4. APPLICATION SCOPE	4
5. PERMIT ANALYSIS	5
6. PERMIT FEES	6
7. PERMIT REVIEW	7
8. RECOMMENDATION	8
APPENDIX A – AIRS INFORMATION	9
APPENDIX B – JR SIMPLOT COMMENTS - REGARDING FACILITY DRAFT PERMIT	11

Acronyms, Units, and Chemical Nomenclatures

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
HAPs	Hazardous Air Pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
MACT	Maximum Achievable Control Technology
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
Rules	Rules for the Control of Air Pollution in Idaho
SIC	Standard Industrial Classification
Simplot	J. R. Simplot, Food Group, Caldwell Facility
SIP	State Implementation Plan
SO₂	sulfur dioxide
UTM	Universal Transverse Mercator
VOC	volatile organic compound
WESP	wet electrostatic precipitator

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

2. FACILITY DESCRIPTION

J. R. Simplot, Food Group, Caldwell facility (Simplot) produces pre-fried French fries, pre-formed and pre-fried potato products, and other processed potato products.

3. FACILITY / AREA CLASSIFICATION

This facility is not a major facility as defined by IDAPA 58.01.01.205 because its potential to emit is limited to less than 250 T/yr of a regulated NSR pollutant. The facility is not a designated facility as defined by IDAPA 58.01.01.006.27. The facility is classified as a major facility for Tier I operating permit requirements, in accordance with IDAPA 58.01.01.008.10, because it emits or has the potential to emit a regulated air pollutant above a Tier I operating permit major source threshold. The SIC code defining the facility is 2037, *Frozen Fruits, Fruits Juices and Vegetables*. The AIRS classification is "A."

The facility is located within AQCR 64 and UTM zone 11. The facility is located in Canyon County which is classified as unclassifiable for all criteria pollutants (PM₁₀, CO, NO_x, SO₂, lead, and ozone). There are no Class I areas within 10 km of the facility.

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at Simplot. This required information is entered into the EPA AIRS database.

4. APPLICATION SCOPE

Simplot has submitted a PTC application to revise its current permit to reflect operating, monitoring, and recordkeeping requirements for the current air pollution control device on the Line 1 fryer. The existing PTC contains operating, monitoring, and recordkeeping requirements for a wet scrubber. DEQ issued a Consent Order to the facility in 1999 which required the replacement of the wet scrubber with a wet electrostatic precipitator (WESP). The WESP was installed in 2000; however, the operating, monitoring, and recordkeeping requirements in the PTC were never revised to reflect the WESP. This permit revision updates the permit to reflect operating, monitoring, and recordkeeping requirements for the WESP. Emissions do not increase as a result of this permit revision.

4.1 Application Chronology

April 4, 2005	DEQ receives the PTC application
May 4, 2005	DEQ declares the PTC application incomplete
June 6, and June 23, 2005	DEQ receives supplement information
July 1, 2005	DEQ declares the PTC application complete
November 18, 2005	DEQ issues notification of condition approval

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action.

5.1 Equipment Listing

There is no change to the existing process equipment, only the air pollution control equipment. The wet scrubber was replaced with the Geoenergy E-Tube® WESP system in 2000. The replacement was required by the consent order issued by DEQ in 1999 to address the visible emissions violation of the fryer.

5.2 Emissions Inventory

This permitting action is to revise the monitoring requirements for the air pollution control device. The emissions limits in existing PTC No. P-970115 are based on process weight limitations, in other words, process throughput. This permit revision doesn't change the process throughput; therefore, this PTC revision does not result in an increase of the allowable emissions limits and an updated emissions inventory is not required.

It should be noted that Tier I Operating Permit No. 027-00009, issued October 4, 2002, required that Simplot conduct a performance test on the Line 1 fryer to demonstrate compliance with the short-term PM emissions limit of 10.88 lb/hr. Simplot conducted the test on September 18, 2003 to satisfy the testing requirement. The results of the test show that the average PM emissions rate measured during the test was 1.98 lb/hr (the maximum being 2.24 lb/hr) at a production rate of 9,207 lb/hr. DEQ approved the test as a demonstration of compliance with the permit limit.

PTC No. P-970115, issued December 31, 1997, limits PM emissions from the Line 1 fryer to 10.88 lb/hr. The average PM emissions rate measured during the September 18, 2003 performance test is approximately 18% of the allowable PM emissions limit. DEQ's April 7, 2004 performance test review letter limited hourly production to 9,207 lb/hr, which is slightly more than 96% of the maximum hourly production rate of the Line 1 fryer. Because Simplot was operating at almost the maximum production rate of the Line 1 fryer during the test and because the measured PM emissions rate during the test is only 18% of the allowable emissions limit, DEQ is not limiting production on a short-term basis. Production is only limited on an annual basis as is done in the existing permit.

5.3 Modeling

This permitting action is to revise the monitoring requirements for the air pollution control device. There is no emissions increase due to this permit revision. Therefore, modeling is not required.

5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

IDAPA 58.01.01.209.04 Revision to Permit to Construct

This permit revision is subject to the requirement in IDAPA 58.01.01.209.04.

IDAPA 58.01.01.209.05 Permit to Construct Procedures for Tier I Sources.

This facility is a Tier I operating permit major facility and has an existing Tier I operating permit. This permit revision will be incorporated into the facility's Tier I operating permit renewal. The Tier I

renewal is currently being processed by DEQ.

5.5 Permit Conditions Review

This section describes only those permit conditions that have been revised, modified or deleted as a result of this permitting action. All other permit conditions remain unchanged.

Due to the new formatting, the permit conditions are renumbered. Table 5.1 provides the cross reference between the revised PTC No. P-050016 and the previous PTC No. P-970515 issued December 31, 1997.

Table 5.1 PERMIT NUMBERING CROSS REFERENCE

Permit Numbering in PTC No. P- 970115 Issued December 31, 1997	Permit Numbering in the Revision	Permit Numbering in PTC No. P- 970115 Issued December 31, 1997	Permit Numbering in the Revision	Permit Numbering in PTC No. P- 970115 Issued December 31, 1997	Permit Numbering in the Revision
---	2.1	2.2	2.6	3.2	2.9
---	2.2	2.3	2.7	3.3	---
1.1	2.3	2.4	---	4.1	---
1.2	2.4	2.5	---	4.2	---
2.1	2.5	3.1	2.8	4.3	General Provision 8

- 5.5.1 Permit Conditions 2.1 and 2.2 in the revised PTC contain information on the process description and the emissions control. They are added to the revised PTC as new permit conditions.
- 5.5.2 Permit Conditions 2.6, 2.7 and 2.9 (formerly Permit Conditions 2.2, 2.3, and 3.2) have been revised to reflect the monitoring requirements for the WESP. A copy of the O&M manual required in Permit Condition 2.7 was submitted to DEQ on June 27, 2005.
- 5.5.3 Permit Conditions 2.4 and 2.5 in the previous PTC No. P-970115 have been removed from the revised PTC because those were the monitoring requirements for the wet scrubber.
- 5.5.4 Permit Condition 2.8 (formerly Permit condition 3.1) has been revised to require the permittee to record the annual throughput monthly to demonstrate compliance with the annual throughput limit in Permit Condition 2.5 (formerly Permit Condition 2.1).
- 5.5.5 Permit Conditions 3.1, 4.1, and 4.2 in the previous PTC No. P-970115 have been removed from the revised PTC No. P-050016 because the performance test was conducted on September 18, 2003. The test was approved by DEQ. The opacity reading conducted during the test was less than 1%. The PM measured during the test was 1.98 lb/hr or 18% of the permit limit.
- 5.5.6 The General Provisions have been updated. Per Simplot's September 26, 2005 submittal, the requirements in General Provision No.5 were met in 1998.

6. PERMIT FEES

Simplot submitted a \$1,000 PTC application fee on April 4, 2005, in accordance with IDAPA 58.01.01.224. Minimal engineering was required for this permit revision; therefore, the applicable processing fee is \$500.00. The processing fee was received December 12, 2005.

7. PERMIT REVIEW

7.1 Regional Review of Draft Permit

The draft permit was made available for Boise Regional Office review on August 16, 2005. The comments were received on August 18, 2005, 2005. They were addressed in this final permit.

7.2 Facility Review of Draft Permit

The draft permit was made available for facility review on September 9, 2005. The facility comments were received on September 26, 2005 and are included as Appendix B. DEQs response to each comment is presented below.

7.2.1 The SIC code has been changed to 2037 as requested in the submittal.

7.2.2 Simplot requested that the annual throughput limit of 41,908 T/yr be rounded to three significant figures, or 42,000 T/yr. The annual throughput limit is the maximum capacity of the Line 1 fryer, 9,568 lb/hr multiplied by 8,760 hr/yr, multiplied by the unit conversion factor of 1 ton/2,000 lb. Simplot provided this information in 1997 which resulted in the PTC issued December 31, 1997. Because the throughput limit represents the maximum of the Line 1 fryer, it cannot be arbitrarily changed.

7.2.3 Permit Condition 2.6 now reads: *The permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer's specifications and recommendations, equipment to monitor the secondary voltage of the WESP and the quench water flow rate.*

7.2.4 Permit Condition 2.7 now reads: *The permittee shall have developed an O&M manual for the WESP that describes the procedures that will be followed to comply with General Provision 2 and the requirements for the WESP as contained in this permit. The O&M manual shall contain at a minimum, the following information: a general discussion of the operation of the WESP, operating procedures, normal operating ranges for the secondary voltage and the quench water flow rate, corrective action steps for when operation is not consistent with normal operating ranges, cleanup and maintenance procedures, and recordkeeping. The O&M manual shall remain on site at all times and shall be made available to DEQ representatives upon request.*

The permittee shall operate the WESP system in accordance with the O&M manual.

7.2.5 Permit Condition 2.9 now reads: *The permittee shall monitor and record the following operating parameters once per day while the WESP is operating. Records of this information shall remain on site for the most recent two-year period and shall be made available to DEQ representatives upon request:*

- *The secondary voltage of the WESP*
- *The flow rate of the quench water system*
- *The quench water system shall be monitored and a daily record kept of whether the sprays are in operation and the corrective action taken when the sprays are not in operation*

7.2.6 Permit condition 2.10 is deleted because it is redundant as mentioned in the submittal.

7.3 Public Comment

In accordance with IDAPA 58.01.01.209.04, public comment is not required for this permit revision.

8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommends that J. R. Simplot Company be issued final PTC No. P-050016 for the revisions to the air pollution control equipment on the Line 1 fryer described in this document. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD requirements.

SYC/sd Permit No. P-050016

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Appendix A

AIRS Information

P-050016

AIRS/AFS^a FACILITY-WIDE CLASSIFICATION^b DATA ENTRY FORM

Facility Name: J. R. Simplot Company, Food Group, Caldwell Facility
Facility Location: Caldwell, ID
AIRS Number: 027-00009

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO ₂	B						B	U
NO _x	A						A	U
CO	A						A	U
PM ₁₀	A						A	U
PT (Particulate)	A						A	U
VOC	B		B				B	U
THAP (Total HAPs)								
APPLICABLE SUBPART								
Kb								

^a Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

^b AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

Appendix B

JR Simplot Comments Regarding Facility Draft Permit

P-050016



September 23, 2005

Certified Mail No. 7003 3110 0003 1623 9463

Bill Rogers
Regional Permit Coordinator
Air Quality Division
Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706-1255

RE: Facility ID No. 027-00009, J. R. Simplot Company, Caldwell
Draft Permit to Construct No. P-050016 - Applicant Comments

Dear Mr. Rogers:

The J. R. Simplot Company (Simplot) received this PTC draft on September 14, 2005. Simplot believes that a number of changes are needed in the proposed permit in regards to the requirements for the Wet Electrostatic Precipitator (WESP). The reason Simplot requested a change in the PTC was solely to update the permit to reflect the actual control equipment in place. This correction was not done during the original Title V (Tier I) permit issuance. DEQ has added new substantive monitoring and reporting requirements for the control equipment, for which no justification is given. Simplot sees no need for these additional requirements and, as noted below, requests that they be deleted. The following are Simplot's comments on specific sections of the draft:

On Title Page, under SIC code. The code in the PTC draft is 2099, this code usually refers to potato products that are dried such as granule or flake potato processing plants. The correct code for the potato french fry facilities is 2037, Frozen Fruits, Fruit Juices and Vegetables. The 2037 code is currently listed in our Tier I permit for Caldwell. **Therefore, Simplot requests changing the SIC code to 2037.**

Under Operating Requirements, Section 2.5, Throughput Limits. Simplot requests that the allowable maximum throughput of 41,908 tons is rounded to 3 significant figures, **therefore the number would be changed to 42,000 tons.**

Under Operating Requirements, Section 2.6, Monitoring Equipment. Based on the comments below, Simplot requests that "continuously" is deleted from this section and also, based on the comments below, Simplot requests that references to the flush water and the differential pressure reading are deleted. Therefore, Simplot requests this section to read:

The permittee shall install, calibrate, maintain and operate, in accordance with Manufacturer's specifications and recommendations, equipment to monitor the secondary voltage of the WESP system and the quench water flow rate.

Under Operating Requirements, Section 2.7, Operations and Maintenance (O & M) Manual Requirements. This section is excessively detailed. Simplot suggests that this section is changed to following, which is based on a similar Idaho DEQ permit with a WESP:

Within 60 days after startup, the permittee shall have developed an O & M manual for the WESP, which describes the procedures that will be followed to comply with General Provision 2 and the manufacturer specifications for the WESP. This manual shall remain onsite at all times and shall be made available to DEQ representatives upon request.

RECEIVED

SEP 26 2005

J. R. Simplot Company, P.O. Box 1059, Caldwell, ID 83606

Department of Environmental Quality
State Air Program

Under Monitoring and Recordkeeping Requirements, Section 2.9, Operating Parameters. Comments are based on each bulleted item in this Section.

w The secondary voltage of the WESP system shall be monitored and the daily average value shall be recorded daily.

The readings for the secondary voltage are monitored on a regular basis. Simplot requested in its Request to Revised Existing PTC that a daily value is recorded. Simplot believes that recording daily average value has no function in the overall operation of the WESP. Therefore, Simplot requests that "average" is deleted from the daily average value and the sentence reads: **The secondary voltage of the WESP shall be monitored and the value shall be recorded daily.**

w The quench water flow rate and the flush water flow rate in the WESP system shall be monitored and a daily average value shall be recorded daily.

The operation of the water sprays (quench water flow) is monitored on a regular basis. Simplot suggested in its Request to Revised Existing PTC that a daily record might be kept of the sprays' operation. **Therefore, Simplot requests that the quench water flow rate daily average value be deleted.** For the flush water flow rate, this is an intermittent deluge stream that occurs for a flow duration of two minutes with a schedule that is based on the flushing requirements of the WESP E-tubes. This flush water flow is not a parameter that is essential to the direct, immediate, and ongoing performance of the WESP, but provides a maintenance function. **Therefore, Simplot requests that the flush water flow rate parameter be deleted from the PTC.** Simplot requests that the sentence is changed to read: **The quench water system shall be monitored and a daily record kept of whether the sprays are in operation.**

w Differential pressure readings across mesh pad mist eliminators shall be monitored and the daily average value shall be recorded daily.

The mesh pad mist eliminators were meant to keep large particles (either water or oil) from exhausting into the stack. The measurement of the differential pressure is a qualitative measurement for maintenance purposes and was never meant to be an operating parameter. Again, this is not a parameter that is essential to the direct, immediate, and ongoing performance of the WESP. **Therefore, Simplot requests that this parameter be deleted from the PTC.**

w The permittee shall record any period, or periods in which the water sprays are not operational, along with a description of why it is not operating or nonoperational, and the corrected action take to make them operational.

Simplot suggests that this item is more appropriately addressed within the O & M Manual. **Simplot requests that this item is deleted from the PTC.**

w The permittee shall submit monthly reports to DEQ of occurrences when the above parameter(s) is beyond the normal operating range(s) specified in the O & M manual while the WESP is operating.

Simplot suggests that this item is more appropriately addressed within the O & M Manual. **Simplot requests that this item is deleted from the PTC.** If there is a major problem with the WESP that will impact requirements related to Excess Emissions that are described within the Caldwell Tier I Operating Permit (Permit No. T1-430015, Section 2.9), Idaho DEQ will be notified.

Records of this information shall be kept on site for the most recent two year period and shall be made available to DEQ representatives upon request.

No comment.


Under Reporting Requirements, Section 2.10, Certification of Documents.

J. R. Simplot Company, P.O. Box 1059, Caldwell, ID 83606

Simplot requests deleting this section. This section is the same as the General Provisions item 8 and therefore redundant.

In Section 3, Permit to Construct General Provisions, item 5. Please note that Simplot has previously met these requirements when the new fryer was installed in 1998.

If you have comments or questions, please contact Lance Carter at (208) 250-6039.

Sincerely,

Reggie Pederson
Unit Director
J. R. Simplot Company

CC: Alan Prouty, Boise
Lance Carter, Caldwell
Sheila Bush, Boise

Henry Hamanishi, Caldwell
Ward Wolleson, Boise

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